

## **REMARKS**

In the Office Action, claim 5 was objected to because of informalities.

Claim 6 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Munekata (U.S. Pat. No. 5,649,709) in view of Yoshiyuki et al. (JP Pub. No. 2001-355740).

The Examiner states that “The Yoshiyuki et al. (hereafter “Yoshiyuki) reference, a lip seal, discloses the addition of a plurality of protrusions (e.g., 11 or 13) that extend in a direction parallel to the longitudinal axis of the shaft, said plurality of protrusions being formed on only the second inclined surface of the second step (Fig. 2)”, page 3, line 21 to page 4, line 2 of the Office Action.

However, the roughened surface or the protrusions (e.g., 11 or 13) formed on the second inclined surface of the second step (Fig. 2) of Yoshiyuki do not extend in a direction parallel to a longitudinal axis of the shaft, but extend in a direction inclined or with no particular directionality with respect to the longitudinal axis of the shaft.

The plurality of protrusions of Yoshiyuki are so called “screw protrusions.” This has nothing to do whatsoever with the present invention.

In the case of a reciprocating seal, screw protrusions or protrusions perpendicular to the shaft cause, when the surface of the lip is brought into sliding contact with the surface of the shaft, a scraping off of the oil from the shaft. Therefore, a problem is caused in that the thickness of the oil film is made too thick to increase an amount of leak of the oil. This is completely contrary to the present invention.

The plurality of protrusions being formed on only the second inclined surface of the second step of claim 1 is constructed so as to extend in a direction parallel to the longitudinal axis of the shaft and hence the plurality of protrusions do not scrape off sealed-in fluid. This is remote from the disclosure in Yoshiyuki.

As discussed above, the plurality of protrusions extending in a direction parallel to the longitudinal axis of the shaft of claim 1 of the present application completely differs from “screw protrusions” or rough machined portions of Yoshiyuki.

Claim 6 has been amended to only avoid the rejection of claim 6 under 35 U.S.C. §112, second paragraph. This amendment does not affect the scope of the claim in that the previously claimed triangular shaped protrusions include “inclined surfaces.” At a minimum, it is requested that entry of this amendment be made to limit the issues on appeal since already pending claim 1 is clearly

distinguished over the relied upon references and particularly the teaching of the Yoshiyuki reference that has no applicability to the present invention as defined in previously presented claim 1.

The objection to claim 5 is respectfully traversed in that “is” modifies the singular “shape” of the protrusions.

Based on the foregoing amendments and remarks, it is respectfully submitted that the claims in the present application, as they now stand, patentably distinguish over the references cited and applied by the Examiner and are, therefore, in condition for allowance. A Notice of Allowance is in order, and such favorable action and reconsideration are respectfully requested.

However, if after reviewing the above amendments and remarks, the Examiner has any questions or comments, he is cordially invited to contact the undersigned attorneys.

Respectfully submitted,

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